

EXHIBIT C
Engineering Specifications for an Overhead Transmission Line
Segment 1 of 4

PRINCIPAL CIRCUIT

1. Name of Petitioner: ITC Midwest, LLC
2. Name or Circuit Number of Line: Prairie Creek CKT 4750
3. Length of Segment: 1.17 (2.34 ckt mi.) miles
4. Segment is located in the following sections, townships, and ranges: Section 36, T83N, R7W and Section 31, T83N, R6W
5. Segment will be rebuilt in 2017.
6. Segment will be maintained in accordance with the Iowa Electrical Safety Code and the 2012 Edition of the National Electrical Safety Code.
7. Maximum *Capable of Operating* Voltage: 72.5 kVAC Nominal Operating Voltage: 69 kVAC
8. Construction Grade: B Typical Span: 275 ft. Maximum Span: 300 ft.

Vertical Overhead Clearance Requirement* for the Phase Conductors

| | <i>Surface</i> | <i>Basic Clearance</i> | <i>+</i> | <i>Voltage Adder</i> | <i>+</i> | <i>Additional Adders</i> | <i>=</i> | <i>Clearance</i> |
|-----|----------------------------|------------------------|----------|----------------------|----------|--------------------------|----------|------------------|
| 9. | <i>Open Ground</i> | 18.5 ft. | + | 0.7 ft. | + | ft. | = | 19.2 ft. |
| 10. | <i>Roads</i> | 18.5 ft. | + | 0.7 ft. | + | ft. | = | 19.2 ft. |
| 11. | <i>(no RR crossings)</i> | ft. | + | ft. | + | ft. | = | ft. |
| 12. | <i>(no water surfaces)</i> | ft. | + | ft. | + | ft. | = | ft. |

* The Iowa Electrical Safety Code and the applicable edition of the NESC should both be referenced to determine the conditions at which the above clearances apply.

Phase Conductors:

13. Code Word: T2-Penguin Size: 423.2 kcmil Stranding: 2-6/1 Material: ACSR

Shield Wire(s):

14. Size: AFL Alumacore DNO-6071 0.555" DIA Stranding: 1/15 Material: Aluminum pipe/Aluminum clad steel
15. Frequency of Shield Wire Grounding (if applicable): At each structure

Typical Insulators

| | <i>Post Type</i> | <i>Suspension Type</i> | |
|-----|-----------------------------|--------------------------------------|---------------------------------|
| | | <i>Tan. / Ang. Single Piece Unit</i> | <i>Strain Single Piece Unit</i> |
| 16. | <i>Manufacturer</i> | Hubbell Power Systems | Hubbell Power Systems |
| 17. | <i>Catalog number</i> | P250034S1020 or Equivalent | S025030H2010 or Equivalent |
| 18. | <i>Dry Flashover</i> | 355 kV | 320 kV |
| 19. | <i>Wet Flashover</i> | 320 kV | 305 kV |
| 20. | <i>Impulse Flashover, +</i> | 545 kV | 535 kV |
| 21. | | | |

22.

| | | | |
|-----------------------------|--------|--------|--------|
| <i>Impulse Flashover, –</i> | 655 kV | 655 kV | 515 kV |
|-----------------------------|--------|--------|--------|

Typical Structures:

23. Structures Typically are: Wood Poles
 24. Typical Height After Installation: 56.5 - 65.5 ft.

Typical Wood Pole:

25. Species: Douglas Fir Treatment: Penta Class: 1-H2 Length: 65-75 ft.

Steel Structures:

26. Steel Pole or Tower Material: N/A
 27. H-Frame Structure Bracing Type: N/A Spacing Between H-Frame Poles: N/A ft.
 28. Support Arm Type: N/A Material: N/A Dimensions: N/A
 29. Guys are: Insulated Guy Markers are: Yellow

SECOND TRANSMISSION CIRCUIT (if applicable)

30. Name of Owner: ITC Midwest, LLC
 31. Name or Circuit Number of Line: Prairie Creek CKT 3150
 32. If Franchised Separately, Docket Number of Order Granting Franchise: This Docket (Northern Circuit)
 33. Maximum Capable of Operating Voltage: 72.5 kVAC Nominal Operating Voltage: 34.5 kVAC

Vertical Overhead Clearance Requirement* for the Phase Conductors

| | Surface | Basic Clearance | + | Voltage Adder | + | Additional Adders | = | Clearance |
|-----|---------------------|--------------------|---|---------------|---|----------------------|---|-----------|
| 34. | Open Ground | 18.5 ft. | + | 0.7 ft. | + | ft. | = | 19.2 ft. |
| 35. | Roads | 18.5 ft. | + | 0.7 ft. | + | ft. | = | 19.2 ft. |
| 36. | (no RR crossings) | ft. | + | ft. | + | ft. | = | ft. |
| 37. | (no water surfaces) | ft. | + | ft. | + | ft. | = | ft. |

* The Iowa Electrical Safety Code and the applicable edition of the NESC should both be referenced to determine the conditions at which the above clearances apply.

Phase Conductors:

38. Code Word: Partridge Size: 266.8 kcmil Stranding: 26/7 Material: ACSR

Typical Insulators

| | Post Type | Suspension Type | |
|-----|----------------------|----------------------------------|-----------------------------|
| | | Tan. / Ang. Single Piece Unit | Strain Single Piece Unit |
| 39. | Manufacturer | Hubbell Power Systems | Hubbell Power Systems |
| 40. | Catalog number | P250034S1020 or Equivalent | S025030H2010 or Equivalent |
| 41. | Dry Flashover | 355 kV | 320 kV |
| 42. | Wet Flashover | 320 kV | 305 kV |
| 43. | Impulse Flashover, + | 545 kV | 535 kV |
| 44. | Impulse Flashover, - | 655 kV | 515 kV |

46. Support Arm Type: N/A Material: N/A Dimensions: N/A

DISTRIBUTION UNDERBUILD (if applicable)

47. Name of Owner: Interstate Power and Light Company

48. Nominal Voltage: 12.5 kV

49. Number of Distribution Phase Conductors: 3

50. Neutral is Multi-grounded Multi-Grounding Frequency: At each structure, except deadends

Vertical Overhead Clearance Requirement* for the Phase Conductors

| | <i>Surface</i> | <i>Basic Clearance</i> | + | <i>Additional Adders</i> | = | <i>Clearance</i> |
|-----|----------------------------|------------------------|---|--------------------------|---|------------------|
| 51. | <i>Open Ground</i> | 18.5 ft. | + | ft. | = | 18.5 ft. |
| 52. | <i>Roads</i> | 18.5 ft. | + | ft. | = | 18.5 ft. |
| 53. | <i>(no RR crossings)</i> | ft. | + | ft. | = | ft. |
| 54. | <i>(no water surfaces)</i> | ft. | + | ft. | = | ft. |

* The Iowa Electrical Safety Code and the applicable edition of the NESC should both be referenced to determine the conditions at which the above clearances apply.

Vertical Overhead Clearance Requirement* for the Neutral Conductor (if applicable)

| | <i>Surface</i> | <i>Basic Clearance</i> | + | <i>Additional Adders</i> | = | <i>Clearance</i> |
|-----|----------------------------|------------------------|---|--------------------------|---|------------------|
| 55. | <i>Open Ground</i> | 15.5 ft. | + | ft. | = | 15.5 ft. |
| 56. | <i>Roads</i> | 15.5 ft. | + | ft. | = | 15.5 ft. |
| 57. | <i>(no RR crossings)</i> | ft. | + | ft. | = | ft. |
| 58. | <i>(no water surfaces)</i> | ft. | + | ft. | = | ft. |

* The Iowa Electrical Safety Code and the applicable edition of the NESC should both be referenced to determine the conditions at which the above clearances apply.

59. Support Arm Type: Crossarm Material: Wood Dimensions: 12' x 4.75" x 3.75"

TYPICAL STRUCTURE DRAWING

60. A drawing of a typical tangent structure, as described in the instructions, has been attached.

ADDITIONAL DRAWINGS REQUIRED FOR NEW CONSTRUCTION

61. Angle structures will be used in this segment of line. A drawing of a typical angle structure, as described in the instructions, has been attached.

62. Dead-end structures will be used in this segment of line. A drawing of a typical dead-end structure, as described in the instructions, has been attached.

63. There are no grain bins along this segment of line. Drawings showing the clearance envelope for each grain bin in relation to the proposed line are not required.

EXHIBIT C
Engineering Specifications for an Overhead Transmission Line
Segment 2 of 4

PRINCIPAL CIRCUIT

1. Name of Petitioner: ITC Midwest, LLC
2. Name or Circuit Number of Line: Prairie Creek CKT 4750
3. Length of Segment: 0.98 miles
4. Segment is located in the following sections, townships, and ranges: Sections 30 and 31 in T83N, R6W
5. Segment will be rebuilt in 2017.
6. Segment will be maintained in accordance with the Iowa Electrical Safety Code and the 2012 Edition of the National Electrical Safety Code.
7. Maximum *Capable of Operating* Voltage: 72.5 kVAC Nominal Operating Voltage: 69 kVAC
8. Construction Grade: B Typical Span: 275 ft. Maximum Span: 300 ft.

Vertical Overhead Clearance Requirement* for the Phase Conductors

| | <i>Surface</i> | <i>Basic Clearance</i> | <i>+</i> | <i>Voltage Adder</i> | <i>+</i> | <i>Additional Adders</i> | <i>=</i> | <i>Clearance</i> |
|-----|----------------------------|------------------------|----------|----------------------|----------|--------------------------|----------|------------------|
| 9. | <i>Open Ground</i> | 18.5 ft. | + | 0.7 ft. | + | ft. | = | 19.2 ft. |
| 10. | <i>Roads</i> | 18.5 ft. | + | 0.7 ft. | + | ft. | = | 19.2 ft. |
| 11. | <i>(no RR crossings)</i> | ft. | + | ft. | + | ft. | = | ft. |
| 12. | <i>(no water surfaces)</i> | ft. | + | ft. | + | ft. | = | ft. |

* The Iowa Electrical Safety Code and the applicable edition of the NESC should both be referenced to determine the conditions at which the above clearances apply.

Phase Conductors:

13. Code Word: T2-Penguin Size: 423.2 kcmil Stranding: 2-6/1 Material: ACSR

Shield Wire(s):

14. Size: AFL Alumacore DNO-6071 0.555" DIA Stranding: 1/15 Material: Aluminum pipe/Aluminum clad steel
15. Frequency of Shield Wire Grounding (if applicable): At each structure

Typical Insulators

| | <i>Post Type</i> | <i>Suspension Type</i> | |
|-----|-----------------------------|--------------------------------------|---------------------------------|
| | | <i>Tan. / Ang. Single Piece Unit</i> | <i>Strain Single Piece Unit</i> |
| 16. | <i>Manufacturer</i> | Hubbell Power Systems | Hubbell Power Systems |
| 17. | <i>Catalog number</i> | 80S0690000 or Equivalent | S025030H2010 or Equivalent |
| 18. | <i>Dry Flashover</i> | 230 kV | 320 kV |
| 19. | <i>Wet Flashover</i> | 180 kV | 305 kV |
| 20. | <i>Impulse Flashover, +</i> | 360 kV | 535 kV |

22.

| | | | |
|-----------------------------|--------|--------|--------|
| <i>Impulse Flashover, –</i> | 415 kV | 415 kV | 515 kV |
|-----------------------------|--------|--------|--------|

Typical Structures:

23. Structures Typically are: Wood Poles
 24. Typical Height After Installation: 56.5 - 65.5 ft.

Typical Wood Pole:

25. Species: Douglas Fir Treatment: Penta Class: 1-H2 Length: 65-75 ft.

Steel Structures:

26. Steel Pole or Tower Material: N/A
 27. H-Frame Structure Bracing Type: N/A Spacing Between H-Frame Poles: N/A ft.
 28. Support Arm Type: N/A Material: N/A Dimensions: N/A
 29. Guys are: Insulated Guy Markers are: Yellow

SECOND TRANSMISSION CIRCUIT (if applicable)

30. Name of Owner: N/A
 31. Name or Circuit Number of Line: _____
 32. If Franchised Separately, Docket Number of Order Granting Franchise: _____
 33. Maximum *Capable of Operating* Voltage: _____ Nominal Operating Voltage: _____

Vertical Overhead Clearance Requirement* for the Phase Conductors

| | <i>Surface</i> | <i>Basic Clearance</i> | + | <i>Voltage Adder</i> | + | <i>Additional Adders</i> | = | <i>Clearance</i> |
|-----|--------------------|----------------------------|---|----------------------|---|------------------------------|---|------------------|
| 34. | <i>Open Ground</i> | ft. | + | ft. | + | ft. | = | ft. |
| 35. | <i>Roads</i> | ft. | + | ft. | + | ft. | = | ft. |
| 36. | <i>Railroads</i> | ft. | + | ft. | + | ft. | = | ft. |
| 37. | <i>Water</i> | ft. | + | ft. | + | ft. | = | ft. |

* The Iowa Electrical Safety Code and the applicable edition of the NESC should both be referenced to determine the conditions at which the above clearances apply.

Phase Conductors:

38. Code Word: _____ Size: _____ Stranding: _____ Material: _____

Typical Insulators

| | <i>Post Type</i> | <i>Suspension Type</i> | |
|-----|-----------------------------|-----------------------------------|------------------------------|
| | | <i>Tan. / Ang. (select)</i> | <i>Strain (select)</i> |
| 39. | <i>Manufacturer</i> | | |
| 40. | <i>Catalog number</i> | | |
| 41. | <i>Dry Flashover</i> | kV | kV |
| 42. | <i>Wet Flashover</i> | kV | kV |
| 43. | <i>Impulse Flashover, +</i> | kV | kV |
| 44. | <i>Impulse Flashover, -</i> | kV | kV |

45. _____
 46. Support Arm Type: _____ Material: _____ Dimensions: _____

DISTRIBUTION UNDERBUILD (if applicable)

47. Name of Owner: Interstate Power and Light Company
48. Nominal Voltage: 12.5 kV
49. Number of Distribution Phase Conductors: 3
50. Neutral is Multi-grounded Multi-Grounding Frequency: At each structure, except deadends

Vertical Overhead Clearance Requirement* for the Phase Conductors

| | <i>Surface</i> | <i>Basic Clearance</i> | + | <i>Additional Adders</i> | = | <i>Clearance</i> |
|-----|----------------------------|------------------------|---|--------------------------|---|------------------|
| 51. | <i>Open Ground</i> | 18.5 ft. | + | 0.0 ft. | = | 18.5 ft. |
| 52. | <i>Roads</i> | 18.5 ft. | + | 0.0 ft. | = | 18.5 ft. |
| 53. | <i>(no RR crossings)</i> | ft. | + | ft. | = | ft. |
| 54. | <i>(no water surfaces)</i> | ft. | + | ft. | = | ft. |

* The Iowa Electrical Safety Code and the applicable edition of the NESC should both be referenced to determine the conditions at which the above clearances apply.

Vertical Overhead Clearance Requirement* for the Neutral Conductor (if applicable)

| | <i>Surface</i> | <i>Basic Clearance</i> | + | <i>Additional Adders</i> | = | <i>Clearance</i> |
|-----|----------------------------|------------------------|---|--------------------------|---|------------------|
| 55. | <i>Open Ground</i> | 15.5 ft. | + | 0.0 ft. | = | 15.5 ft. |
| 56. | <i>Roads</i> | 15.5 ft. | + | 0.0 ft. | = | 15.5 ft. |
| 57. | <i>(no RR crossings)</i> | ft. | + | ft. | = | ft. |
| 58. | <i>(no water surfaces)</i> | ft. | + | ft. | = | ft. |

* The Iowa Electrical Safety Code and the applicable edition of the NESC should both be referenced to determine the conditions at which the above clearances apply.

59. Support Arm Type: Crossarm Material: Wood Dimensions: 12' x 4.75" x 3.75"

TYPICAL STRUCTURE DRAWING

60. A drawing of a typical tangent structure, as described in the instructions, has been attached.

ADDITIONAL DRAWINGS REQUIRED FOR NEW CONSTRUCTION

61. Angle structures will be used in this segment of line. A drawing of a typical angle structure, as described in the instructions, has been attached.
62. Dead-end structures will be used in this segment of line. A drawing of a typical dead-end structure, as described in the instructions, has been attached.
63. There are no grain bins along this segment of line. Drawings showing the clearance envelope for each grain bin in relation to the proposed line are not required.

EXHIBIT C
Engineering Specifications for an Overhead Transmission Line
Segment 3 of 4

PRINCIPAL CIRCUIT

1. Name of Petitioner: ITC Midwest, LLC
2. Name or Circuit Number of Line: Prairie Creek CKT 4750
3. Length of Segment: 0.12 miles
4. Segment is located in the following sections, townships, and ranges: Section 31 in T83N, R6W
5. Segment will be rebuilt in 2017.
6. Segment will be maintained in accordance with the Iowa Electrical Safety Code and the 2012 Edition of the National Electrical Safety Code.
7. Maximum *Capable of Operating* Voltage: 72.5 kVAC Nominal Operating Voltage: 69 kVAC
8. Construction Grade: B Typical Span: 275 ft. Maximum Span: 300 ft.

Vertical Overhead Clearance Requirement* for the Phase Conductors

| | <i>Surface</i> | <i>Basic Clearance</i> | <i>+</i> | <i>Voltage Adder</i> | <i>+</i> | <i>Additional Adders</i> | <i>=</i> | <i>Clearance</i> |
|-----|----------------------------|----------------------------|----------|----------------------|----------|------------------------------|----------|------------------|
| 9. | <i>Open Ground</i> | 18.5 ft. | + | 0.7 ft. | + | ft. | = | 19.2 ft. |
| 10. | <i>Roads</i> | 18.5 ft. | + | 0.7 ft. | + | ft. | = | 19.2 ft. |
| 11. | <i>(no RR crossings)</i> | ft. | + | ft. | + | ft. | = | ft. |
| 12. | <i>(no water surfaces)</i> | ft. | + | ft. | + | ft. | = | ft. |

* The Iowa Electrical Safety Code and the applicable edition of the NESC should both be referenced to determine the conditions at which the above clearances apply.

Phase Conductors:

13. Code Word: T2-Penguin Size: 423.2 kcmil Stranding: 2-6/1 Material: ACSR

Shield Wire(s):

14. Size: AFL Alumacore DNO-6071 0.555" DIA Stranding: 1/15 Material: Aluminum pipe/
Aluminum clad steel
15. Frequency of Shield Wire Grounding (if applicable): At each structure

Typical Insulators

| | | <i>Suspension Type</i> | |
|-----|-----------------------------|----------------------------|-------------------------------------|
| | | <i>Tan. / Ang. N/A</i> | <i>Strain Single Piece Unit</i> |
| 16. | <i>Post Type</i> | | |
| 17. | <i>Manufacturer</i> | Hubbell Power Systems | Hubbell Power Systems |
| 18. | <i>Catalog number</i> | 80S0690600 or Equivalent | S025030H2010 or Equivalent |
| 19. | <i>Dry Flashover</i> | 230 kV | 320 kV |
| 20. | <i>Wet Flashover</i> | 180 kV | 305 kV |
| 21. | <i>Impulse Flashover, +</i> | 360 kV | 535 kV |
| 22. | <i>Impulse Flashover, -</i> | 415 kV | 515 kV |

Typical Structures:

23. Structures Typically are: Wood Poles
 24. Typical Height After Installation: 56.5 - 65.5 ft.

Typical Wood Pole:

25. Species: Douglas Fir Treatment: Penta Class: 1-H2 Length: 65-75 ft.

Steel Structures:

26. Steel Pole or Tower Material: N/A
 27. H-Frame Structure Bracing Type: N/A Spacing Between H-Frame Poles: N/A ft.
 28. Support Arm Type: N/A Material: N/A Dimensions: N/A
 29. Guys are: Insulated Guy Markers are: Yellow

SECOND TRANSMISSION CIRCUIT (if applicable)

30. Name of Owner: N/A
 31. Name or Circuit Number of Line: _____
 32. If Franchised Separately, Docket Number of Order Granting Franchise: _____
 33. Maximum *Capable of Operating* Voltage: _____ Nominal Operating Voltage: _____

Vertical Overhead Clearance Requirement* for the Phase Conductors

| | <i>Surface</i> | <i>Basic Clearance</i> | + | <i>Voltage Adder</i> | + | <i>Additional Adders</i> | = | <i>Clearance</i> |
|-----|--------------------|----------------------------|---|----------------------|---|------------------------------|---|------------------|
| 34. | <i>Open Ground</i> | ft. | + | ft. | + | ft. | = | ft. |
| 35. | <i>Roads</i> | ft. | + | ft. | + | ft. | = | ft. |
| 36. | <i>Railroads</i> | ft. | + | ft. | + | ft. | = | ft. |
| 37. | <i>Water</i> | ft. | + | ft. | + | ft. | = | ft. |

* The Iowa Electrical Safety Code and the applicable edition of the NESC should both be referenced to determine the conditions at which the above clearances apply.

Phase Conductors:

38. Code Word: _____ Size: _____ Stranding: _____ Material: _____

Typical Insulators

| | <i>Post Type</i> | <i>Suspension Type</i> | |
|-----|-----------------------------|-----------------------------------|------------------------------|
| | | <i>Tan. / Ang. (select)</i> | <i>Strain (select)</i> |
| 39. | <i>Manufacturer</i> | | |
| 40. | <i>Catalog number</i> | | |
| 41. | <i>Dry Flashover</i> | kV | kV |
| 42. | <i>Wet Flashover</i> | kV | kV |
| 43. | <i>Impulse Flashover, +</i> | kV | kV |
| 44. | <i>Impulse Flashover, -</i> | kV | kV |

45. Support Arm Type: _____ Material: _____ Dimensions: _____

DISTRIBUTION UNDERBUILD (if applicable)

47. Name of Owner: N/A
48. Nominal Voltage: _____
49. Number of Distribution Phase Conductors: _____
50. Neutral is _____ Multi-Grounding Frequency: _____

Vertical Overhead Clearance Requirement* for the Phase Conductors

| | <i>Surface</i> | <i>Basic Clearance</i> | + | <i>Additional Adders</i> | = | <i>Clearance</i> |
|-----|--------------------|------------------------|---|--------------------------|---|------------------|
| 51. | <i>Open Ground</i> | ft. | + | ft. | = | ft. |
| 52. | <i>Roads</i> | ft. | + | ft. | = | ft. |
| 53. | <i>Railroads</i> | ft. | + | ft. | = | ft. |
| 54. | <i>Water</i> | ft. | + | ft. | = | ft. |

* The Iowa Electrical Safety Code and the applicable edition of the NESC should both be referenced to determine the conditions at which the above clearances apply.

Vertical Overhead Clearance Requirement* for the Neutral Conductor (if applicable)

| | <i>Surface</i> | <i>Basic Clearance</i> | + | <i>Additional Adders</i> | = | <i>Clearance</i> |
|-----|--------------------|------------------------|---|--------------------------|---|------------------|
| 55. | <i>Open Ground</i> | ft. | + | ft. | = | ft. |
| 56. | <i>Roads</i> | ft. | + | ft. | = | ft. |
| 57. | <i>Railroads</i> | ft. | + | ft. | = | ft. |
| 58. | <i>Water</i> | ft. | + | ft. | = | ft. |

* The Iowa Electrical Safety Code and the applicable edition of the NESC should both be referenced to determine the conditions at which the above clearances apply.

59. Support Arm Type: _____ Material: _____ Dimensions: _____

TYPICAL STRUCTURE DRAWING

60. A drawing of a typical tangent structure, as described in the instructions, has been attached.

ADDITIONAL DRAWINGS REQUIRED FOR NEW CONSTRUCTION

61. Angle structures will not be used in this segment of line. A drawing of a typical angle structure, as described in the instructions, has not been attached.
62. Dead-end structures will be used in this segment of line. A drawing of a typical dead-end structure, as described in the instructions, has been attached.
63. There are no grain bins along this segment of line. Drawings showing the clearance envelope for each grain bin in relation to the proposed line are not required.

EXHIBIT C
Engineering Specifications for an Overhead Transmission Line
Segment 4 of 4

PRINCIPAL CIRCUIT

1. Name of Petitioner: ITC Midwest, LLC
2. Name or Circuit Number of Line: Prairie Creek CKT 4750
3. Length of Segment: 0.10 miles
4. Segment is located in the following sections, townships, and ranges: Section 31 in T83N, R6W
5. Segment will be rebuilt in 2017.
6. Segment will be maintained in accordance with the Iowa Electrical Safety Code and the 2012 Edition of the National Electrical Safety Code.
7. Maximum *Capable of Operating* Voltage: 72.5 kVAC Nominal Operating Voltage: 69 kVAC
8. Construction Grade: B Typical Span: 300 ft. Maximum Span: 300 ft.

Vertical Overhead Clearance Requirement* for the Phase Conductors

| | <i>Surface</i> | <i>Basic Clearance</i> | + | <i>Voltage Adder</i> | + | <i>Additional Adders</i> | = | <i>Clearance</i> |
|-----|----------------------------|------------------------|---|----------------------|---|--------------------------|---|------------------|
| 9. | <i>Open Ground</i> | 18.5 ft. | + | 0.7 ft. | + | ft. | = | 19.2 ft. |
| 10. | <i>Roads</i> | 18.5 ft. | + | 0.7 ft. | + | ft. | = | 19.2 ft. |
| 11. | <i>(no RR crossings)</i> | ft. | + | ft. | + | ft. | = | ft. |
| 12. | <i>(no water surfaces)</i> | ft. | + | ft. | + | ft. | = | ft. |

* The Iowa Electrical Safety Code and the applicable edition of the NESC should both be referenced to determine the conditions at which the above clearances apply.

Phase Conductors:

13. Code Word: Grosbeak Size: 636 kcmil Stranding: 26/7 Material: ACSR

Shield Wire(s):

14. Size: 3/8" Stranding: 7 Material: EHS Steel
15. Frequency of Shield Wire Grounding (if applicable): At each structure

Typical Insulators

| | | <i>Suspension Type</i> | |
|-----|-----------------------------|---------------------------|----------------------|
| | | <i>Tan. / Ang.</i> N/A | <i>Strain</i> N/A |
| 16. | <i>Post Type</i> | | |
| 17. | <i>Manufacturer</i> | Hubbell Power Systems | |
| 18. | <i>Catalog number</i> | 80S0690600 or Equivalent | |
| 19. | <i>Dry Flashover</i> | 230 kV | kV |
| 20. | <i>Wet Flashover</i> | 180 kV | kV |
| 21. | <i>Impulse Flashover, +</i> | 360 kV | kV |
| 22. | <i>Impulse Flashover, -</i> | 415 kV | kV |

Typical Structures:

23. Structures Typically are: Laminated Wood Poles
 24. Typical Height After Installation: 70-83.5 ft.

Typical Wood Pole:

25. Species: Laminated Wood Treatment: Penta Class: H4-H6 Length: 80-95 ft.

Steel Structures:

26. Steel Pole or Tower Material: N/A
 27. H-Frame Structure Bracing Type: N/A Spacing Between H-Frame Poles: N/A ft.
 28. Support Arm Type: N/A Material: N/A Dimensions: N/A
 29. Guys are: Insulated Guy Markers are: Yellow

SECOND TRANSMISSION CIRCUIT (if applicable)

30. Name of Owner: ITC Midwest, LLC
 31. Name or Circuit Number of Line: Bertram - Prairie Creek Industrial
 32. If Franchised Separately, Docket Number of Order Granting Franchise: E-20994
 33. Maximum *Capable of Operating* Voltage: 169 kVAC Nominal Operating Voltage: 161 kVAC

Vertical Overhead Clearance Requirement* for the Phase Conductors

| | <i>Surface</i> | <i>Basic Clearance</i> | + | <i>Voltage Adder</i> | + | <i>Additional Adders</i> | = | <i>Clearance</i> |
|-----|----------------------------|----------------------------|---|----------------------|---|------------------------------|---|------------------|
| 34. | <i>Open Ground</i> | 18.5 ft. | + | 2.6 ft. | + | ft. | = | 21.1 ft. |
| 35. | <i>Roads</i> | 18.5 ft. | + | 2.6 ft. | + | ft. | = | 21.1 ft. |
| 36. | <i>(no RR crossings)</i> | ft. | + | ft. | + | ft. | = | ft. |
| 37. | <i>(no water surfaces)</i> | ft. | + | ft. | + | ft. | = | ft. |

* The Iowa Electrical Safety Code and the applicable edition of the NESC should both be referenced to determine the conditions at which the above clearances apply.

Phase Conductors:

38. Code Word: Rail Size: 954 kcmil Stranding: SD Type 7 Material: ACSR/SD

Typical Insulators

| | | <i>Suspension Type</i> | |
|-----|-----------------------------|--|-----------------------|
| | | <i>Tan. / Ang. Single Piece Unit</i> | <i>Strain N/A</i> |
| 39. | <i>Post Type</i> | | |
| 40. | <i>Manufacturer</i> | Hubbell Power Systems | |
| 41. | <i>Catalog number</i> | P250053S0020 | S025053S2010 |
| 42. | <i>Dry Flashover</i> | 565 kV | 560 kV |
| 43. | <i>Wet Flashover</i> | 495 kV | 525 kV |
| 44. | <i>Impulse Flashover, +</i> | 855 kV | 900 kV |
| 45. | <i>Impulse Flashover, -</i> | 950 kV | 900 kV |

46. Support Arm Type: N/A Material: _____ Dimensions: _____

DISTRIBUTION UNDERBUILD (if applicable)

47. Name of Owner: N/A

48. Nominal Voltage: _____

49. Number of Distribution Phase Conductors: _____

50. Neutral is _____ Multi-Grounding Frequency: _____

Vertical Overhead Clearance Requirement* for the Phase Conductors

| | <i>Surface</i> | <i>Basic Clearance</i> | + | <i>Additional Adders</i> | = | <i>Clearance</i> |
|-----|--------------------|------------------------|---|--------------------------|---|------------------|
| 51. | <i>Open Ground</i> | ft. | + | ft. | = | ft. |
| 52. | <i>Roads</i> | ft. | + | ft. | = | ft. |
| 53. | <i>Railroads</i> | ft. | + | ft. | = | ft. |
| 54. | <i>Water</i> | ft. | + | ft. | = | ft. |

* The Iowa Electrical Safety Code and the applicable edition of the NESC should both be referenced to determine the conditions at which the above clearances apply.

Vertical Overhead Clearance Requirement* for the Neutral Conductor (if applicable)

| | <i>Surface</i> | <i>Basic Clearance</i> | + | <i>Additional Adders</i> | = | <i>Clearance</i> |
|-----|--------------------|------------------------|---|--------------------------|---|------------------|
| 55. | <i>Open Ground</i> | ft. | + | ft. | = | ft. |
| 56. | <i>Roads</i> | ft. | + | ft. | = | ft. |
| 57. | <i>Railroads</i> | ft. | + | ft. | = | ft. |
| 58. | <i>Water</i> | ft. | + | ft. | = | ft. |

* The Iowa Electrical Safety Code and the applicable edition of the NESC should both be referenced to determine the conditions at which the above clearances apply.

59. Support Arm Type: _____ Material: _____ Dimensions: _____

TYPICAL STRUCTURE DRAWING

60. A drawing of a typical tangent structure, as described in the instructions, has been attached.

ADDITIONAL DRAWINGS REQUIRED FOR NEW CONSTRUCTION

61. Angle structures will not be used in this segment of line. A drawing of a typical angle structure, as described in the instructions, has not been attached.

62. Dead-end structures will not be used in this segment of line. A drawing of a typical dead-end structure, as described in the instructions, has not been attached.

63. There are no grain bins along this segment of line. Drawings showing the clearance envelope for each grain bin in relation to the proposed line are not required.